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MOSER, PATTERSON & SHERIDAN L.L.P.
595 SHREWSBURY AVE, STE 100
FIRST FLOOR
SHREWSBURY, NJ 07702

EXAMINER

MEUCCI, MICHAEL D

ART UNIT PAPER NUMBER

2142

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/770,135

Applicant(s)

BALDWIN ET AL.

Examiner

Michael D. Meucci

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to Request for Continued Examination (RCE) filed 29 July 2005.

Drawings

2. New drawings were received on 29 July 2005. These drawings are acceptable.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 1 rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for "said process is adapted for reducing a number of protocol round trips required between said transmitter and said receiver for delivering said message to said receiver", does not reasonably provide enablement for the actual removal of the delimiting step separating the list of addresses the message is to be sent to and the start of the message, including the receiver's step of sending an acknowledgement allowing the transmitter to begin sending the message and informing the transmitter of how to input the "end of message" characters. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make or use the invention commensurate in scope with these

claims. The applicant specifies the removal of the round trip from Example 1 on page 6 of RFC 821 ("Simple Mail Transfer Protocol" by Postel):

S: DATA

R: 354 Start mail input; end with <CRLF>.<CRLF>

but does not establish where these steps will be included, as they are essential to a functional system. This limitation has been given patentable weight, but lacks enablement as to how the number of round trips is reduced.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 1 rejected under 35 U.S.C. 103(a) as being unpatentable over Kronz in view of Crocker (RFC 822), hereinafter referred to as Crocker and Elgamal et al. (U.S. 5,657,390) hereinafter referred to as Elgamal.

Kronz teaches transmission and reception of electronic mail with a reliable byte-stream transport (lines 38-39 of column 19); and the steps: transmitter connecting to receiver (lines 20-22 of column 19); receiver sending a greeting to the transmitter (lines 32-36 of column 14 and lines 30-34 of column 19); transmitter replying the receiver with a greeting (lines 23-39 of column 19); receiver replying the transmitter with status (lines 35-38 of column 19); transmitter receiving envelope status and sending message (lines

32-34 of column 19); and the receiver receiving message and replying the message status (lines 36-38 of column 19).

Kronz does not explicitly disclose the step of the transmitter replying the receiver with an envelope. However, Crocker teaches: "In this context, messages are viewed as having an envelope and contents," (section 1.1, paragraph 2, lines 1-2).

It would have been obvious for one of ordinary skill in the art at the time of the applicant's invention to have the transmitter reply the receiver with an envelope. "The envelope contains whatever information is needed to accomplish transmission and delivery. The contents compose the object to be delivered to the recipient. This standard applies only to the format and some of the semantics of message contents. It contains no specification of the information in the envelope. However, some message systems may use information from the contents to create the envelope. It is intended that this standard facilitate the acquisition of such information by programs." (section 1.1, paragraphs 2-3 in Crocker). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have the transmitter reply the receiver with an envelope in the system as taught by Kronz.

Kronz does not explicitly teach: wherein said process is adapted for reducing a number of protocol round trips required between said transmitter and said receiver for delivering said message to said receiver. However, Elgamal discloses: "Also note that the server will not send its SERVER-HELLO message until it has received the CLIENT-HELLO message. This is done so that the server can indicate the status of the client's session-identifier back to the client in the server's first message (i.e. to increase protocol

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efficiency and reduce the number of round trips required)," (lines 16-21 of column 22).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to reduce the number of round trips. Fewer round trips and increased protocol efficiency is the desired effect. It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to reduce the number of round trips in the system as taught by Kronz.

7. Claim 2 rejected under 35 U.S.C. 103(a) as being unpatentable over Kronz, Crocker, and Elgamalas applied to claim 1, in view of Skeen et al. (U.S. 5,257,369) and Holmes et al. (U.S. 6,134,432).

Kronz teaches the receiver receiving a complete message (lines 52-54 of column 13 in Kronz), but does not explicitly disclose the receiver discarding record of the status of the previous message as being in transit, and the transmitter sending a new envelope without a greeting to the receiver.

However, Skeen et al. and Holmes et al. disclose the constraints respectively:

- Skeen et al. discloses flushing the retransmit buffer once all packets have been successfully received, thereby discarding records of message as being in transit (lines 1-5 of column 6 in Skeen et al.).
- Holmes et al. disclose the client, once authenticated, proceeding with message submission until either side terminates the session (lines 26-28 of column 15 in Holmes et al.) and thereby not sending a new greeting. Transmission of a new envelope is

inherent since different messages can contain different header information (lines 24-25 of column 15 in Holmes et al.).

One of ordinary skill in the art at the time of the applicant's invention would have clearly recognized that it is quite advantageous for the protocol of Kronz to discard records of the status of the previous message as being in transit. Discarding records of the status of the previous message as being in transit will make room for information of the next message (lines 4-5 of column 6 in Skeen et al.). It is for this reason that one of ordinary skill in the art would have been motivated to discard records of the status of the previous message as being in transit in the system of Kronz-Crocker.

One of ordinary skill in the art at the time of the applicant's invention would have clearly recognized that it is quite advantageous for the protocol of Kronz to have the transmitter send a new envelope without a greeting to the receiver. Sending a new envelope without a greeting will allow the connecting host to proceed with message submission until either side terminates the session, thereby reducing overhead for sending and receiving the greeting for each message (lines 24-28 of column 15 in Holmes et al.). It is for this reason that one of ordinary skill in the art would have been motivated to have the transmitter send a new envelope without a greeting to the in the system of Kronz-Crocker.

8. Claim 3 rejected under 35 U.S.C. 103(a) as being unpatentable over Kronz, Crocker, and Elgamal as applied to claim 1.

Kronz teaches transmission and reception of electronic mail as carried over an 8-bit channel (lines 27-29 of column 2).

9. Claim 4 rejected under 35 U.S.C. 103(a) as being unpatentable over Kronz, Crocker, and Elgamal as applied to claim 1, in view of Fielding, R., "RFC 2068".

Kronz does not explicitly disclose imposing no line-length limits on the messages. However, Fielding discloses the HTTP protocol as not placing any limit on the length of a Uniform Resource Identifier (URI) (paragraph 4, page 15 of 127 in Fielding).

One of ordinary skill in the art at the time of the applicant's invention would have clearly recognized that it is quite advantageous for the protocol of Kronz to impose no line-length limits on the messages as in Fielding. Servers must be able to handle the URI of any resource they serve, and should be able to handle URIs of unbounded length (paragraph 4, page 15 of 127 in Fielding). It is for this reason that one of ordinary skill in the art would have been motivated to impose no line length in the system of Kronz-Crocker.

10. Claim 5 rejected under 35 U.S.C. 103(a) as being unpatentable over Kronz, Crocker, and Elgamal as applied to claim 1, in view of Yamasaki (U.S. 5,699,517).

Kronz does not explicitly disclose suppression of duplicate messages. However, Yamasaki discloses suppressing duplicate response (line 2 of column 9 in Yamasaki).

One of ordinary skill in the art at the time of the applicant's invention would have clearly recognized that it is quite advantageous for the protocol of Kronz to include

duplicate message suppression in order to avoid transmission of response messages having the same response information data on the network in a duplicate manner (lines 4-6 of column 9 in Yamasaki). It is for this reason that one of ordinary skill in the art would have been motivated to include message in the system of Kronz-Crocker

11. Claim 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Kronz, Crocker, and Elgamal as applied to claim 1, in view of Richardson, Christopher (Google Group comp.os.linux.answers, 01/07/1998).

Kronz does not explicitly disclose implementing loop detection. However, Richardson discloses qmail supports host and user masquerading, full host hiding, virtual domains, null clients, list-owner rewriting, relay control, double-bounce recording, arbitrary RFC 822 address lists, cross-host mailing list loop detection, etc (lines 21-24, paragraph 1 of page 2 in Richardson).

One of ordinary skill in the art at the time of the applicant's invention would have clearly recognized that it is quite advantageous for the protocol of Kronz to implement loop detection. Loop detection would limit the machine load (line 19, paragraph 1 of page 2 in Richardson). It is for this reason that one of ordinary skill in the art would have been motivated to implement loop detection in the system of Kronz-Crocker Claim 7 rejected under 35 U.S.C. 103(a) as being unpatentable over Kronz as applied to claim 1, in further view of Elliott et al. (U.S. 5,764,241).

Kronz does not explicitly disclose not requiring carriage returns and line feeds in a message body. However Elliott et al. discloses ignoring carriage returns and line feeds (lines 9-10 of column 44 in Elliott et al.), which thereby makes them not required.

One of ordinary skill in the art at the time of the applicant's invention would have clearly recognized that it is quite advantageous for the protocol of Kronz to ignore carriage returns and line feeds so they can be used as token separators (lines 10-11 of column 44 of Elliott et al.). It is for this reason that one of ordinary skill in the art would have been motivated to not require carriage returns and line feeds in a message body in the system of Kronz-Crocker.

12. Claim 8 rejected under 35 U.S.C. 103(a) as being unpatentable over Kronz, Crocker, and Elgamal as applied to claim 1, in view of Sriram (U.S. 5,463,620).

Kronz does not explicitly disclose the transmission of data between transmitter and receiver as being asynchronous. However, Sriram discloses the asynchronous transfer mode (ATM) standard (lines 41-42 column 1).

One of ordinary skill in the art at the time of the applicant's invention would have clearly recognized that it is quite advantageous for the protocol of Kronz to utilize the asynchronous transfer mode standard because it is able to handle many more diverse kinds of traffic than the low-speed networks of the past (lines 41-43 of column 1). It is for this reason that one of ordinary skill in the art would have been motivated to transmit data between transmitter and receiver asynchronously in the system of Kronz-Crocker.

13. Claims 9 and 10 rejected under 35 U.S.C. 103(a) as being unpatentable over Kronz, Crocker, and Elgamal as applied to claim 1, in view of Foster et al. (U.S. 5,583,993).

Kronz does not explicitly disclose transmitter dropping connection with the receiver if transmitter detects loss of synchronization and receiver dropping connection with the transmitter if receiver detects loss of synchronization. However, Foster et al. discloses reinitiating participation to reestablish synchronous communication (Abstract) which implies that synchronous communication was lost and detected. Foster et al. also discloses closing the view to terminate participation in the session (Abstract) and therefore can be done by transmitter or receiver, whichever one detects loss of synchronization.

One of ordinary skill in the art at the time of the applicant's invention would have clearly recognized that it is quite advantageous for the protocol of Kronz to have the transmitter/receiver that detects the loss of synchronization drop the connection with the other so time is not wasted with an unsynchronized connection in the system of Kronz-Crocker.

14. Claim 11 rejected under 35 U.S.C. 103(a) as being unpatentable over Kronz-Crocker as applied to claim 1, in view of Freed, N. (RFC 2045, 1996).

Kronz does not explicitly disclose transmitting and receiving message as raw unconverted data. However, Freed discloses many media types, which could be

usefully transported via email, are represented, in their "natural" format, as 8bit character or binary data (section 6, paragraph 1, lines 1-2).

One of ordinary skill in the art at the time of the applicant's invention would have clearly recognized that it is quite advantageous for the protocol of Kronz to transmit and receive messages as raw unconverted data because it (their natural format) is utilized by many media types (section 6, paragraph 1, lines 1-2). It is for this reason that one of ordinary skill in the art would have been motivated transmit and receive messages as raw unconverted data in the system of Kronz-Crocker.

15. Claim 12 and corresponding operation of claim 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Postel (RFC 0821 – Simple Mail Transfer Protocol) hereinafter referred to as Postel, in view of Phaal (U.S. 6,006,269).

As per claims 12 and 13, Postel teaches: sending an envelope to the receiver (line 21 under section 3.1 on page 4); receiving a previous message status associated with a previous message sent from the transmitter to the receiver (lines 9-10 under section 3.1 on page 5); sending a current message to the receiver (lines 1-8 under section 3.1 on page 5); and receiving a current message status associated with the current message transmitted from the transmitter to the receiver (lines 9-10 under section 3.1 on page 5).

Postel does not explicitly teach: processing the previous message status associated with the previous message transmitted from the transmitter to the receiver for determining whether to drop responsibility for the previous message; and processing

the envelope status in response to a determination that there is at least one additional message available for transmission from the transmitter to the receiver. However, Phaal discloses: "Whether access is automatic or elective with the user, the web page proceeds to re-submit the same URL which originally resulted in deferral, as indicated by block 79 of FIG. 4A. If priority is represented by a cookie stored on the client system (or with a password), the web page can be configured to automatically load header information for the URL request with priority information, as indicated by block 81," (lines 7-14 of column 12).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to receive a previous message status and process the envelope status after determining there is at least one additional message available for transmission from the transmitter to the receiver. "This function 81 is indicated as optional (i.e., by dashed lines in FIG. 4A), because as mentioned earlier, it is preferred to use interrogation of the cookie on the hard drive of the client system by the admission control gateway to resolve priority," (lines 14-18 of column 12 in Phaal). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to receive a previous message status and process the envelope status after determining there is at least one additional message available for transmission from the transmitter to the receiver in the system as taught by Postel.

16. Claim 1 rejected under 35 U.S.C. 103(a) as being unpatentable over Postel in view of Elgamal.

As per claim 1, Postel teaches: transmitter connecting to receiver (inherent, lines 10-12 under section 3.1 on page 4 and section 3.5 on page 13); receiver sending a greeting to the transmitter (connection acknowledgement is inherent, lines 13-18 under section 3.1 on page 4 and section 3.5 on page 13); transmitter replying the receiver with a greeting (line 21 under section 3.1 on page 4); receiver replying the transmitter with status (lines 22-23 under section 3.1 on page 4); transmitter receiving envelope status and sending message (lines 1-8 under section 3.1 on page 5); and the receiver receiving message and replying the message status (lines 9-10 under section 3.1 on page 5).

Postel does not explicitly teach: wherein said process is adapted for reducing a number of protocol round trips required between said transmitter and said receiver for delivering said message to said receiver. However, Elgamal discloses: "Also note that the server will not send its SERVER-HELLO message until it has received the CLIENT-HELLO message. This is done so that the server can indicate the status of the client's session-identifier back to the client in the server's first message (i.e. to increase protocol efficiency and reduce the number of round trips required)," (lines 16-21 of column 22). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to reduce the number of round trips. Fewer round trips and increased protocol efficiency is the desired effect. It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to reduce the number of round trips in the system as taught by Postel.

Response to Arguments

17. Applicants arguments are directed toward newly claimed subject matter which is addressed in the rejections above.

Allowable Subject Matter

18. The claims appear to contain allowable subject matter not in allowable form. The scope of claims 1 vs. 12/13 are different in that claim 1 (and dependant claims) is directed toward connecting to a receiver and transferring a message, wherein the step of reducing the number of round trips is mentioned and broadly claimed but not enabled, while claims 12 and 13 are directed toward reducing the number of round trips after the first message is sent. Session-based communication prior art reads *strongly* on claims 12 and 13. The "electronic mail" limitation of all the claims is only recited in the preamble and thus given no patentable weight. If the processes of claims 1 and 12/13 are combined while limiting the invention to only electronic mail (which appears to be what is desired, though not directly claimed), the claimed invention would likely be deemed allowable. Applicant should include claims 12/13 in modified form so as to wholly claim the invention in claim 1 in a manner reflecting how they pertain to the step of "reducing a number of protocol round trips required for delivering said message to said receiver". As stated above, this limitation in claim 1 has been given patentable weight but lacks enablement as to how the number of round trips is reduced. The inclusion of claims 12/13 in claim 1 would avert the rejection for enablement of claim 1

because the scope of the combined claims would differ from that which is rejected and the combined claims would show how the number of round trips is reduced.

Conclusion

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Gilchrist et al. (U.S. 5,768,505) discloses object oriented mail server and SNADS.

Whalen et al. (U.S. 5,948,066) discloses information delivery over narrow-band links.

Dascalu (U.S. 5,958,015) discloses communication session access rules.

Buckley et al. (U.S. 6,035,327) discloses SMTP extension to preserve per-message and per-recipient properties.

IBM-TDB-ACC-NO: NN8808174 discloses SMTP and sockets on SNA.

IBM-TDB-ACC-NO: NN9111110 discloses SNADS and X.400.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Meucci at (571) 272-3892. The examiner can normally be reached on Monday-Friday from 9:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell, can be reached at (571) 272-3868. The fax phone number for this Group is 571-273-8300.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [michael.meucci@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



ANDREW CALDWELL
SUPERVISORY PATENT EXAMINER